

REMARKS

Applicant respectfully requests reconsideration. Claims 1-90 were pending in the application with claims 15-90 being withdrawn. Applicant is amending claim 1 and canceling claims 2-6, 8-12 and 14-90. Claims 91-96 are being added. No new matter has been added. Claims 1, 7, 13 and 91-96 are pending for examination, with claim 1 being independent.

Telephone Interview

Applicant wishes to thank the Examiner for the telephone interview on September 12, 2006. Applicant's representative, Robert Walat, and Examiner Lewis participated in the interview. During the interview, differences between an ordered intermetallic compound and a metal alloy were discussed. The claim rejections and the cited references (U.S. Patent Nos. 6,232,264 and 5,922,487) were also discussed. Applicant proposed to amend the claims to be directed to a single intermetallic compound (e.g., PtPb) and corresponding fuels. Applicant is responding to the Office Action consistent with the discussion in the interview.

Rejection of Claims 1-13

Claims 1-13 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,232,264 (Lukehart)¹.

Applicant has amended independent claim 1 to recite that the ordered intermetallic compound is PtPb and that the catalyst oxidizes a fuel selected from the group consisting of formic acid, methanol, ethanol and ethylene glycol. Lukehart fails to teach or suggest a catalyst comprising ordered intermetallic PtPb which oxidizes any of the fuels recited in amended claim 1.

Moreover, Applicant is submitting respective declarations under 37 C.F.R. 1.132 signed by the inventors which set forth the exceptional catalytic properties (also described in the application) of ordered intermetallic PtPb when oxidizing the fuels recited in claim 1. As noted in the declarations, these properties are entirely unexpected and lead to significant advantages over conventional catalytic materials with respect to these fuels. Such unexpectedly good results are evidence of the non-obviousness of the catalytic system of claim 1.

¹ Though the office action initially lists only claim 1 as being rejected on this ground, it appears that the intent was to reject claims 1-13 on this ground. Applicant is responding as if claims 1-13 were rejected on this ground.

For these reasons, claim 1 is patentable over Lukehart. Claims 7 and 13 depend from claim 1 and are also patentable over Lukehart for at least this reason. Claims 2-6 and 8-12 have been cancelled.

Accordingly, Applicant respectfully requests withdrawal of the rejection on this ground.

Rejection of Claim 14

Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lukehart in view U.S. Patent No. 5,922,487 (Watanabe).

Claim 14 depends from claim 1. Watanabe fails to provide the deficiencies of Lukehart noted above with respect to claim 1. Specifically, Watanabe fails to teach or suggest the claimed ordered intermetallic compound (i.e., PtPb) and the recited fuels (formic acid, methanol, ethanol and ethylene glycol). Accordingly, claim 1 and, thus, claim 14 are patentable over the combination of Lukehart in view of Watanabe.

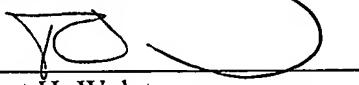
Accordingly, Applicant respectfully requests withdrawal of the claim rejections on this ground.

New Claims

Claims 91-96 have been added. These claims depend from claim 1 and are patentable over the cited references for at least the reasons noted above that claim 1 is patentable.

Dated: October 4, 2006

Respectfully submitted,

By 

Robert H. Walat

Registration No.: 46,324
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
(617) 646-8000